

AMENDMENTS TO THE CLAIMS

Claims 1-40 (Cancelled).

41. (Currently Amended) An isolated nucleic acid molecule comprising a polynucleotide sequence selected from the group consisting of:

(a) an isolated polynucleotide encoding a polypeptide corresponding to amino acids 1 to 409 of SEQ ID NO:6 including the start codon;

(b) an isolated polynucleotide encoding a polypeptide corresponding to amino acids 2 to 409 of SEQ ID NO:6 minus the start codon;

(c) an isolated polynucleotide encoding a mature polypeptide corresponding to amino acids 53 to 409 of SEQ ID NO:6;

~~(d) an isolated polynucleotide encoding the TNF domain of the DmTNFv2 polypeptide corresponding to amino acids 316 to 332 of SEQ ID NO:6;~~

~~[(e)](d)~~ an isolated polynucleotide which represents the complimentary sequence (antisense) of (a), (b), or (c), or (d); and

~~[(f)](e)~~ a polynucleotide that hybridizes under stringent conditions to any one of the polynucleotides specified in (a)-~~[(e)](c)~~, wherein said stringent conditions refers to a hybridization that is at least as stringent as the following conditions: an overnight incubation at 42 degree C in a solution comprising 50% formamide, 5x SSC (750 mM NaCl, 75 mM trisodium citrate), 50 mM sodium phosphate (pH 7.6), 5x Denhardt's solution, 10% dextran sulfate, and 20 µg/ml denatured, sheared salmon sperm DNA, followed by washing the filters in 0.1x SSC at about 65 degree C, wherein said polynucleotide does not hybridize under stringent conditions to a nucleic acid molecule having a nucleotide sequence of only A residues or of only T residues, and ~~wherein said polynucleotide encodes a polypeptide having TNF activity~~wherein the complimentary sequence of said polynucleotide encodes a polypeptide that induces apoptosis in a cell or tissue in which said polypeptide is recombinately expressed.

42. (Previously Presented) The isolated nucleic acid molecule of claim 41, wherein said polynucleotide is (a).

43. (Previously Presented) The isolated nucleic acid molecule of claim 42, wherein said polynucleotide comprises nucleotides 634 to 1860 of SEQ ID NO:5.

44. (Previously Presented) The isolated nucleic acid molecule of claim 41, wherein said polynucleotide is (b).

45. (Previously Presented) The isolated nucleic acid molecule of claim 44, wherein said polynucleotide comprises nucleotides 637 to 1860 of SEQ ID NO:5.

46. (Previously Presented) The isolated nucleic acid molecule of claim 41, wherein said polynucleotide is (c).

47. (Previously Presented) The isolated nucleic acid molecule of claim 46, wherein said polynucleotide comprises nucleotides 790 to 1860 of SEQ ID NO:5.

48. (Cancelled).

49. (Cancelled).

50. (Currently Amended) The isolated nucleic acid molecule of claim 41, wherein said polynucleotide is [(e)][d].

51. (Currently Amended) The isolated nucleic acid molecule of claim 41, wherein said polynucleotide is [(f)][e].

52. (Currently Amended) A recombinant vector comprising the isolated nucleic acid molecule of a member of the group consisting of claim 41(a), (b), (c), [(d)],]and [(f)][e].

53. (Previously Presented) A recombinant host cell comprising the vector sequences of claim 52.

54. (Previously Presented) A method of making an isolated polypeptide comprising:

(a) culturing the recombinant host cell of claim 53 under conditions such that said polypeptide is expressed; and

(b) recovering said polypeptide.

55. (Previously Presented) The isolated polynucleotide of claim 41 wherein said nucleic acid sequence further comprises a heterologous nucleic acid sequence.

56. (Previously Presented) The isolated polynucleotide of claim 55 wherein said heterologous nucleic acid sequence encodes a heterologous polypeptide.

57. (Previously Presented) The isolated polynucleotide of claim 56 wherein said heterologous polypeptide is the Fc domain of immunoglobulin.

58. (Currently Amended) An isolated nucleic acid molecule comprising a polynucleotide having a nucleotide sequence at least 80.0% identical to a sequence provided in claim 41, wherein percent identity is calculated using a CLUSTALW global sequence alignment according to the following parameters: gap opening penalty: 10; gap extension penalty: 0.5; gap separation penalty

range: 8; percent identity for alignment delay: 40%; and transition weighting: 0, and wherein said polynucleotide encodes a polypeptide having TNF activitywherein said polynucleotide encodes a polypeptide that induces apoptosis in a cell or tissue in which said polypeptide is recombinately expressed.

59. (Previously Presented) The isolated polynucleotide of claim 58 wherein said nucleic acid sequence further comprises a heterologous nucleic acid sequence.

60. (Previously Presented) The isolated polynucleotide of claim 59 wherein said heterologous nucleic acid sequence encodes a heterologous polypeptide.

61. (Previously Presented) The isolated polynucleotide of claim 60 wherein said heterologous polypeptide is the Fc domain of immunoglobulin.

62. (Currently Amended) The isolated nucleic acid molecule of claim 41(a), wherein the nucleotide sequence encodes a polypeptide comprising one or more amino acid deletions from the N-terminus beginning at amino acid position 1 of SEQ ID NO:6 up to and including amino acid 315 of SEQ ID NO:6, wherein said polynucleotide encodes a polypeptide having TNF activitywherein said polynucleotide encodes a polypeptide that induces apoptosis in a cell or tissue in which said polypeptide is recombinately expressed.

63. (Currently Amended) The isolated nucleic acid molecule of claim 41, wherein the nucleotide sequence encodes a polypeptide comprising one or more amino acid substitutions corresponding to amino acids 316 to 332 of SEQ ID NO:6, wherein said polynucleotide encodes a polypeptide having TNF activitywherein said polynucleotide encodes a polypeptide that induces apoptosis in a cell or tissue in which said polypeptide is recombinately expressed.

64. (Currently Amended) A recombinant vector comprising the isolated nucleic acid molecule of claim 41[[e]](d).

65. (Previously Presented) A recombinant host cell comprising the vector sequences of claim 64.

66. (Currently Amended) The isolated nucleic acid molecule of claim 41, wherein the nucleotide sequence encodes a polypeptide comprising one or more amino acid deletions from the C-terminus beginning at amino acid position 409 of SEQ ID NO:6 up to and including amino acid 333 of SEQ ID NO:6, wherein said polynucleotide encodes a polypeptide having TNF activitywherein said polynucleotide encodes a polypeptide that induces apoptosis in a cell or tissue in which said polypeptide is recombinately expressed.